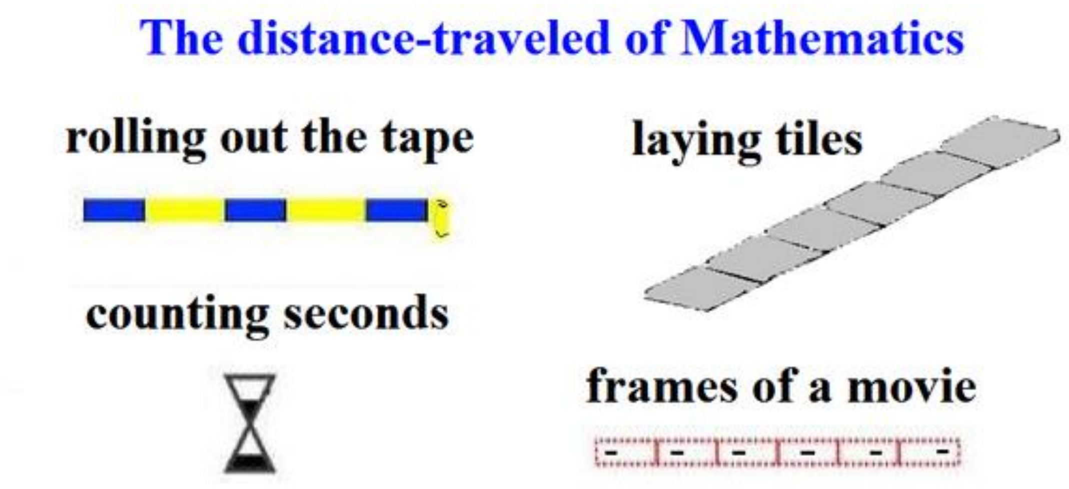
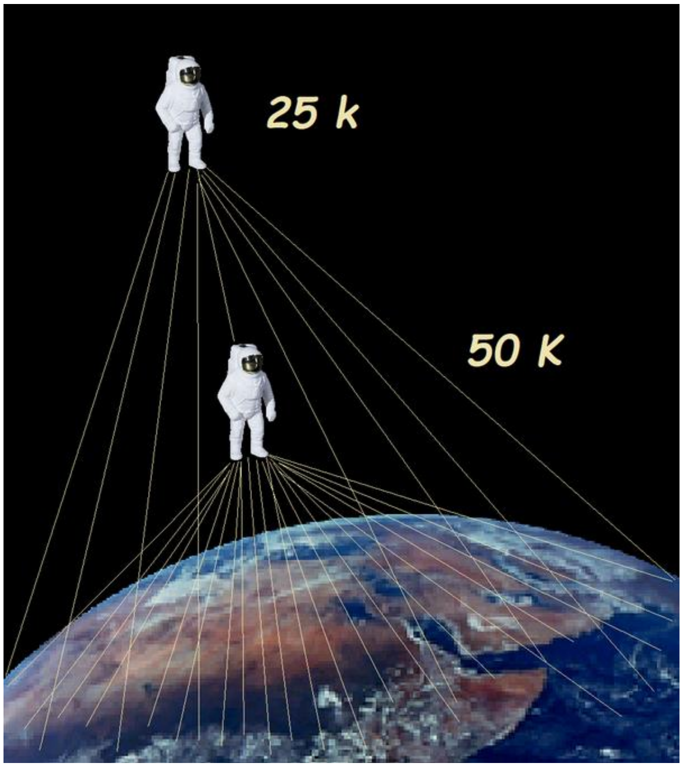
# What is the distance between threads in the Rope Model of light?

We must first distinguish between the notions of the word *distance* that genuine physicists use versus the ones mathematical so-called ‘physicists’ use. Mathematical ‘physics’ has never dealt with *distance* or used this concept at all. The so-called ‘distance’ of Mathematical ‘physics’ is actually a dynamic *distance-traveled*. A mathematician unrolls the measuring tape from location A to location B and reads a value specified in pre-established units.



In contrast, the *distance* of Science is entirely qualitative, static, and simple: separation, gap, chasm, breach. As an example, the denominator in the gravitational tension equation ( [T = G m1 m2 / d^2]() ) is the distance (separation) of genuine Physics and guarantees that weight is location specific. You have a given weight at a given separation from the center of the Earth. You move an inch closer or further and you ‘instantly’ have a different weight. The reason for this ‘instantaneity’ is that the number of effective EM ropes converging on each of the atoms of your body has changed as a result that the ropes have fanned out and their angles has changed.



Conversely, the so-called ‘distance’ embodied in acceleration of Newton’s 2nd ‘law’… (F = ma)… is the distance-traveled of Mathematical ‘physics’. This ‘distance’ is a dynamic distance. Force changes not as a result of the location of the object with respect to another. Force changes as a result of increased pressure. The gravitational equation has to do with PULL: tension at different locations. It reflects the number of effective EM ropes converging on an atom at different separations from the target. The force equation has to do with PUSH (whether you push on the cart or ‘pull’ the rope that is tied to the donkey). The following chart summarizes the differences between distance and distance-traveled.

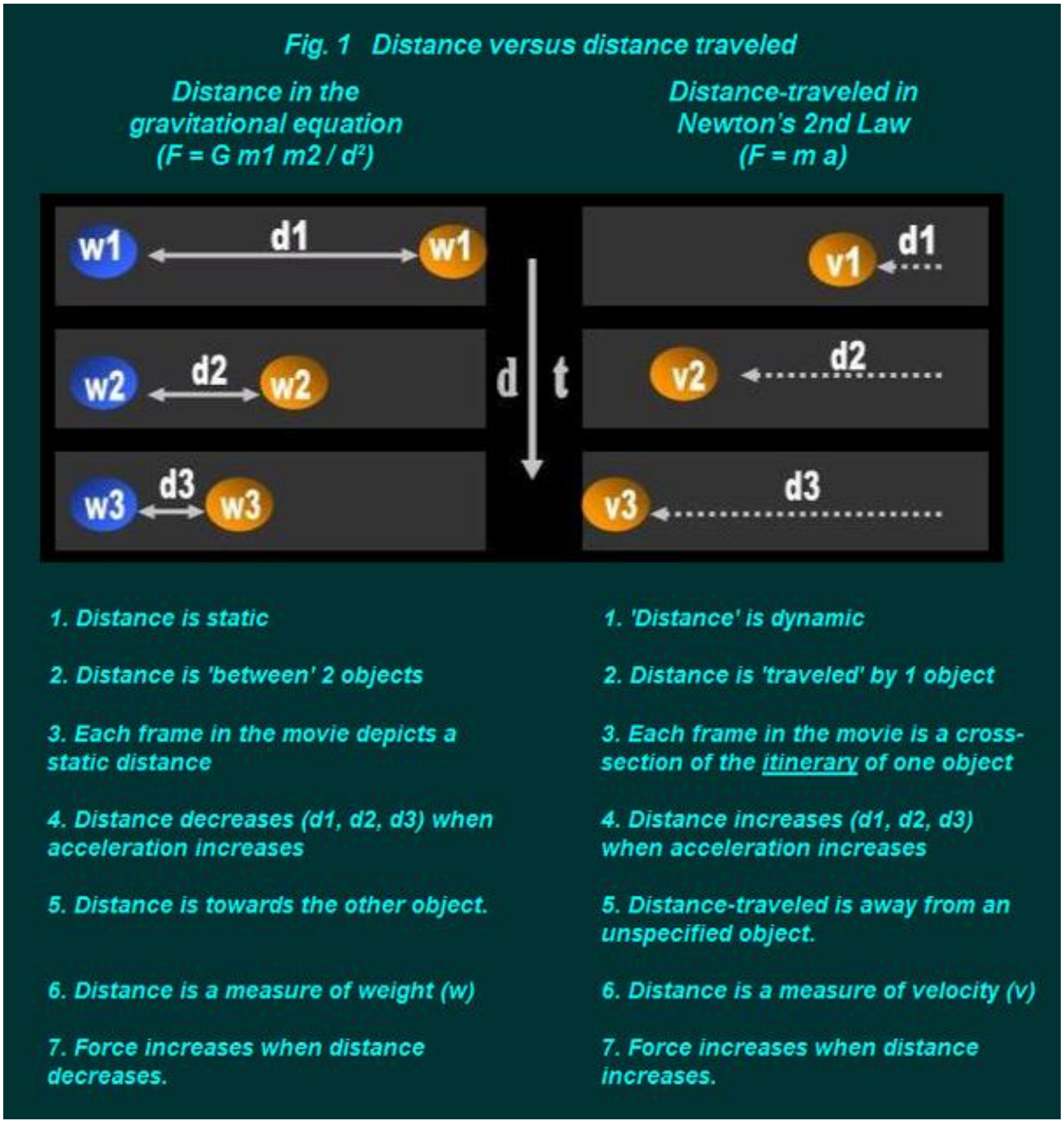


*Fig. 1 Distance versus distance traveled*

| *Distance in the gravitational equation ($F = G\,m1\,m2 / d^2$)* | *Distance-traveled in Newton's 2nd Law ($F = m\,a$)* |
|---|---|
| *1. Distance is static* | *1. 'Distance' is dynamic* |
| *2. Distance is 'between' 2 objects* | *2. Distance is 'traveled' by 1 object* |
| *3. Each frame in the movie depicts a static distance* | *3. Each frame in the movie is a cross-section of the itinerary of one object* |
| *4. Distance decreases (d1, d2, d3) when acceleration increases* | *4. Distance increases (d1, d2, d3) when acceleration increases* |
| *5. Distance is towards the other object.* | *5. Distance-traveled is away from an unspecified object.* |
| *6. Distance is a measure of weight (w)* | *6. Distance is a measure of velocity (v)* |
| *7. Force increases when distance decreases.* | *7. Force increases when distance increases.* |

Mathematical ‘physics’ harps on measurement and offers surrealistic, unimaginable, and irrational mechanisms for how the Universe works. Mathematical ‘physicists’ are only interested in equations and don’t care at all about the underlying causes which they summarily dismiss as ‘philosophy’.

In genuine Physics, on the other hand, we are solely interested in qualitative issues. Physics is about explaining mechanisms objectively and rationally. Therefore, we have no use for equations. An equation can only describe.

So… is there a gap between the two threads?

There had better be if we are to talk about them as two separate objects! There had better be separation (i.e., space, vacuum, void, nothing) between them. The two threads should have distinct surfaces for fear that otherwise they would form a single object.

How much *distance-traveled* there is between them is a matter that concerns mathematicians and not physicists.